

CLAIMS

1. A system of wireless electronic registration plates comprising of a central wireless module that can be built in any area within a motor vehicle where there is a possibility for wiring of the central module with an electric energy source and, the electronic registration plates that are independently powered by solar cells, **wherein** the registration plates have built-in wireless communication chips as to enable receiving of, updating and sending the data to a data source (portable computer or any similar electronic device enabled with Bluetooth technology) as well as between the central wireless module and satellite wireless modules that are placed in the electronic registration plates, and that the electronic paper i.e. electronic ink technology is used for displaying of the data on the registration plates.
2. The system of wireless electronic registration plates of claim 1, **wherein** the said wireless electronic registration plates are formed of two functional parts: an active display and a solar housing, which together form an inseparable unit.
3. The system of wireless electronic registration plates of claim 2, **wherein** the active display is made of two flexible parts.
4. The system of wireless electronic registration plates of claim 3, **wherein** for the first flexible part the display module made of electronic paper is used, which consist of two layers, front plane laminate and back plane laminate.
5. The system of wireless electronic registration plates of claim 4, **wherein** the front plane laminate consist of a layer of electronic ink embodied within a plastic film layer containing transparent conducting electrodes.
6. The system of wireless electronic registration plates of claim 4, **wherein** the back plane laminate is made of flexible plastic or metal/alloy sheet and it contains electronic complex that controls the displayed information.
7. The system of wireless electronic registration plates of claim 6, **wherein** the electronic complex in the back plane laminate contains a control module i.e. chip with memory and a driver for text and graphics and, a wireless module i.e. chip which enables for wireless communication and data transfer.
8. The system of wireless electronic registration plates of claim 1, **wherein** the central wireless module consist of a wireless chip and electronics that is needed for suitable wiring of the module with an electric energy source within a vehicle and for the use of it.
9. The system of wireless electronic registration plates of claim 2, **wherein** the solar housing is made of transparent, flexible plastic that is so profiled (cradle-like) as to allow

for the active screen for display to be affixed/embedded into it, so the two make the one as a whole.

10. The system of wireless electronic registration plates of claim 9, **wherein** a solar module, which consist of solar cells made of thin, flexible plastic film connected to the thin, rechargeable battery that is embedded into the solar housing wall behind the solar module, is placed in a lower part of the solar housing.
11. The system of wireless electronic registration plates of claim 10, **wherein** for the supply of electric energy to the satellite modules the thin film batteries are used which are placed in the back of the housing, and its electrodes are in contact with the respective contact areas in the back of the back plane laminate of the active display, that is affixed into the solar housing.
12. The system of wireless electronic registration plates of claim 1 or 2, **wherein** the assembled registration plates are additionally laminated as a whole with an additional layer of highly protective plastic for further protection.
13. The system of wireless electronic registration plates of claim 12, **wherein** on the back surface of the registration plates a double-sided, acrylic/epoxy tape is attached which enables for affixing/gluing of the registration plates on to a vehicle body surface, bumpers or the registration plate holders.
14. The system of wireless electronic registration plates of claim 13, **wherein** the wireless communication, selection of data to be displayed, synchronization, transfer and data input is done in accordance with a procedure that has been explained in a detailed description of the invention.

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AMENDED CLAIMS

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originally filed claims 1-14 replaced by amended claims 1-15]

CLAIMS

1. A system of wireless electronic registration plates comprising of a central wireless module that can be built in any area within the transport means where there is a possibility for wiring of the central module with an electric energy source and, the electronic registration plates that are independently powered by solar cells, **wherein** the registration plates have built-in wireless communication chips as to enable receiving of, updating and sending the data to a data source (portable computer or any similar electronic device enabled with Bluetooth technology) as well as between the central wireless module and satellite wireless modules that are placed in the electronic registration plates, and that the electronic paper i.e. electronic ink technology is used for displaying of the data on the registration plates.
2. The system of wireless electronic registration plates of claim 1, **wherein** the said wireless electronic registration plates are formed of two functional parts: an active display and a solar housing, which together form an inseparable unit.
3. The system of wireless electronic registration plates of claim 2, **wherein** the active display is made of two flexible parts.
4. The system of wireless electronic registration plates of claim 3, **wherein** for the first flexible part the display module made of electronic paper is used, which consist of two layers, front plane laminate and back plane laminate.
5. The system of wireless electronic registration plates of claim 4, **wherein** the front plane laminate consist of a layer of electronic ink embodied within a plastic film layer containing transparent conducting electrodes.
6. The system of wireless electronic registration plates of claim 4, **wherein** the back plane laminate is made of flexible plastic or metal/alloy sheet and it contains electronic complex that controls the displayed information.
7. The system of wireless electronic registration plates of claim 6, **wherein** the electronic complex in the back plane laminate contains a control module i.e. chip with memory and a driver for text and graphics and, a wireless module i.e. chip which enables for wireless communication and data transfer.
8. The system of wireless electronic registration plates of claim 1, **wherein** the central wireless module consist of a wireless chip and electronics that is needed for suitable wiring of the module with an electric energy source within the transport means and for the use of it.
9. The system of wireless electronic registration plates of claim 2, **wherein** the solar housing is made of transparent, flexible plastic that is so profiled (cradle-like) as to allow

for the active screen for display to be affixed/embedded into it, so the two make the one as a whole.

10. The system of wireless electronic registration plates of claim 9, **wherein** a solar module, which consist of solar cells made of thin, flexible plastic film connected to the thin, rechargeable battery that is embedded into the solar housing wall behind the solar module, is placed in a lower part of the solar housing.
11. The system of wireless electronic registration plates of claim 10, **wherein** for the supply of electric energy to the satellite modules the thin film batteries are used which are placed in the back of the housing, and its electrodes are in contact with the respective contact areas in the back of the back plane laminate of the active display, that is affixed into the solar housing.
12. The system of wireless electronic registration plates of claim 1 or 2, **wherein** the assembled registration plates are additionally laminated as a whole with an additional layer of highly protective plastic for further protection.
13. The system of wireless electronic registration plates of claim 12, **wherein** on the back surface of the registration plates a double-sided, acrylic/epoxy tape is attached which enables for affixing/gluing of the registration plates on to the transport means body surface, bumpers or the registration plate holders.
14. The system of wireless electronic registration plates of claim 13, **wherein** the wireless communication, selection of data to be displayed, synchronization, transfer and data input is done in accordance with a procedure that has been explained in a detailed description of the invention.
15. The system of wireless electronic registration plates of claims 1 and 2, **wherein** the said wireless electronic registration plates can be in the form, pattern and size of the existing standardized and legally required registration plates that can be placed either externally on the transport means body or inside the transport means, which can be also combined with some additional wireless electronic registration plates produced in any other form, pattern and size in accordance with the present invention and placed either internally or externally with a purpose of storage and display of the registration information.